FACT SHEET

Allen Family Foods, Inc.
P.O. Box 63
Harbeson, DE 19951

NPDES Permit No. DE 0000299
State Permit No. WPCC 3131E/76

Allen Family Foods, Inc. (Allen), Harbeson, Delaware has applied for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit to discharge treated process water, domestic waste water, and storm water to Beaverdam Creek which discharges to the Broadkill River.

Proposed Permit Changes Include:

1. Add Outfall 003 to cover second storm water discharge location at south fence and apply same permit conditions as for Outfall 002 (west fence).

2. Add Outfall 004 to cover storm water discharge from access driveways and employee parking area. Impose standard minimum requirement for non-process related storm waters of "The discharge shall be free from floating solids, sludge deposits, debris, oil and scum."

3. Impose 40 CFR Part 432, Subpart K concentration limits on Outfalls 002 and 003 (See Table 1 below). Substitute Water Quality-based "Enterococcus" daily maximum limits of 185 col/100 mL for "Fecal Coliforms" limit of 400 col/100 mL. Set monitoring frequency for Table 1 parameters and total phosphorus at once per month.

4. Delete monitoring for TMDL pollutants TKN, Nitrite, Nitrate, and ortho-phosphorus at Outfalls 001, 002, and 003.

5. Based on a comparison of current permit limits to limits based on the Final MPP Effluent Guidelines – 40 CFR Part 432, Subpart K, changes for Outfall 001 include:

   - Add daily average concentration limit of 16 mg/l for BOD_5
   - Add daily average concentration limit of 20 mg/l for TSS
   - Add daily average concentration limit of 8 mg/l for Oil & Grease
   - Add winter season (November – March) limits for ammonia (see Table 7 below)
   - Change daily maximum load limit for BOD_5 from 228 to 227 lbs/day

6. For Outfall 001, add performance-based daily average/daily maximum concentration limits of 46.0/55.3 mg/L and mass limits of 467/574 lbs/day for total nitrogen.

TABLE 1
MPP Effluent Guideline Limits Applicable to Process Wastewater and Industrial Storm Water

40 CFR Part 432, Subpart K Limits		
	Maximum Monthly Average (mg/L)	Maximum Daily (mg/L)
BOD_5	16	26
TSS	20	30
O&G	8	14
NH_3 - N	4	8
Total Nitrogen	103	147
Fecal Coliform	---	[a]

[a] Maximum of 400 MPN or CFU per 100 mL at any time.

Final - Effective Date: May 1, 2006

Facility Location

This facility is located on Route 5, approximately a half mile south of the junction of Route 9 and Route 5 in Harbeson.

Activity Description

Allen Family Foods, Inc., is a poultry processing plant which involves: the transportation of live birds from the poultry farms, slaughtering, defeathering, eviscerating, chilling, packing, and the shipping of poultry meat to the distributors. The industrial wastewater and domestic wastewater from the poultry plant flow into their sanitary treatment plant (STP). The STP consists of primary screening, dissolved air flotation, biological nutrient removal (anoxic basins followed by aerobic basins), secondary clarifiers, chlorination, and dechlorination. Process related storm water is collected in sumps with pumping of first flush to the STP.

Statutory and Regulatory Basis

The Delaware Department of Natural Resources and Environmental Control (DNREC) proposes to issue the company a NPDES permit to discharge wastewater subject to effluent limitations identified in the permit. Section 402 of the Federal Clean Water Act of 1977, as amended and 7 Del. C., Chapter 60 provide the authority for NPDES permit issuance. Regulations promulgated pursuant to these statutes are the regulatory basis for permit issuance.

Receiving Stream Classification

The permittee has four outfalls to Beaverdam Creek, which flows into the Broadkill River and finally to the Delaware Bay. The designated uses of the Broadkill River in the area of the discharge are: Industrial Water Supply; Primary Contact Recreation; Secondary Contact Recreation; Protection of Fish, Aquatic Life, and Wildlife; and Agricultural Water Supply.

The following table describes the receiving waters in the vicinity of the discharge:

TABLE 2
Receiving Water Stream Classification

Outfall	Discharges To	Fresh/ Salt Water	Tidal/ Nontidal	Support of Designated Uses in Receiving Waters: F=@Fully Supported@, P=@Partially Supported@, T=@Threatened@, & N=@Not Supported@							
				Primary Contact	Secondary Contact	Aquatic Life	ERES Waters	Public Water Supply	Agric. Supply	Industrial Supply	Harvestable Shellfish
001, 002, 003 & 004	Beaverdam Creek	Fresh	Nontidal	N (Bact.)	F	N (D.O.)	--	--	F	F	--

A TMDL Schedule has been established for the Broadkill Watershed:

TABLE 3
Broadkill River TMDL Schedule

BROADKILL WATERSHED TMDL SCHEDULE											
Activity	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Planning		■	■								
Preliminary WQ Assessment		■									
Intensive basin monitoring			■	■	■	■					
Model development					■						
TMDL development						■					
TMDL review							■				
Pollution Control Strategy								■			
Permit Term							Approximate				

The beginning of the permit term coincides with the end of TMDL development. The current permit requires monthly monitoring for Outfall 001 (quarterly for 002) for TMDL model input data (Ortho-Phosphate, Nitrate Nitrogen, Nitrite Nitrogen, and TKN).). Since the TMDL intensive basin monitoring is scheduled to end in 2005, monitoring for these total nitrogen and total phosphorus components will be deleted. Monitoring for total phosphorus will continue at Outfalls 001, 002 and 003, and monitoring for total nitrogen will be added at these outfalls. Since Outfall 004 discharges only storm water runoff from non-process areas, monitoring for TMDL-related parameters is not being required at this outfall.

Discharge Description

Outfall 001 is treated process waste water from the poultry processing operation.

Outfall 002 (West Fence) is storm water runoff from the Screening Area, Trucks Parking and Clean Area, Loading and Unloading Area. Outfall 003 (South Fence) is storm water runoff from the Truck Parking and Live Holding Shed Area. Outfalls 002 and 003 each flow through a separate concrete sump equipped with a pump that pumps first flush water to the influent of the process wastewater treatment system.

Outfall 004 is storm water runoff from access driveways and the employee parking area.

The following table is a summary description of the discharges:

TABLE 4
Wastewater Discharge Components by Outfall

Outfall	Flow Limit (mgd)	Discharge Components			
		Process Wastewater	Sanitary Wastewater	Noncontact Cooling Water	Storm Water
001	1.25	T	T	--	--
002	--	--	--	--	T
003	--	--	--	--	T
004	--	--	--	--	T

Table 5 presents a summary of DMR concentration data for Outfalls 001 and 002.

Table 5
Summary of DMR Concentration Data for Outfalls 001 and 002

Parameter	Outfall	Reporting Period	Daily Average or Daily Maximum	Units	Minimum	Average	Maximum
BOD5	001	Jan 97 - May 05	Daily Average	mg/L	3.0	3.1	3.9
BOD5	001	Jan 97 - May 06	Daily Maximum	mg/L	3.0	4.2	20.0
PH	001	Jan 97 - May 07	Daily Mimumum	SU	6.0	6.1	6.7
PH	001	Jan 97 - May 08	Daily Maximum	SU	6.3	6.9	7.8
TSS	001	Jan 97 - May 09	Daily Average	mg/L	1.1	2.4	7.9
TSS	001	Jan 97 - May 10	Daily Maximum	mg/L	1.3	5.6	22.3
OIL & GREASE	001	Jan 97 - May 11	Daily Average	mg/L	1.0	1.0	1.8
OIL & GREASE	001	Jan 97 - May 12	Daily Maximum	mg/L	1.0	1.1	3.4
AMMONIA	001	Jan 97 - May 13	Daily Average	mg/L	0.1	0.3	2.3
AMMONIA	001	Jan 97 - May 14	Daily Maximum	mg/L	0.1	2.0	26.4
NITRITES (AS N)	001	Dec 99 - May 05	Daily Maximum	mg/L	0.1	0.1	0.1
NITRATE-NITRITE	001	Dec 99 - May 06	Daily Maximum	mg/L	8.6	27.9	44.5
TOTAL KJELDAHL NITROGEN	001	Dec 99 - May 07	Daily Maximum	mg/L	0.9	1.7	5.6
PHOSPHORUS, TOTAL	001	Jan 97 - May 05	Daily Average	mg/L	0.1	0.8	2.0
PHOSPHORUS, TOTAL	001	Jan 97 - May 05	Daily Maximum	mg/L	0.1	0.7	3.0
SOLUBLE ORTHO PHOSPHORUS AS P	001	Dec 99 - May 05	Daily Maximum	mg/L	0.0	0.2	0.7
ENTEROCOCCUS	001	Nov 99 - May 05	Daily Average	no./100ml	2.0	3.0	21.9
FLOW	001	Jan 97 - May 05	Daily Average	mgd	0.6	0.8	1.1
FLOW	001	Jan 97 - May 05	Daily Maximum	mgd	1.1	1.3	1.7
Total TKN Plus NITRITE & NITRATE	001	Oct 02 - Nov 04	Daily Maximum	mg/L	10.4	29.7	45.9
BOD5	002	Jan 97 - May 05	Daily Maximum	mg/L	12.0	119	300
PH	002	Jan 97 - May 05	Daily Maximum	SU	0.1	4.3	8.1
TSS	002	Jan 97 - May 05	Daily Maximum	mg/L	170	1,321	3,330
OIL & GREASE	002	Jan 97 - May 05	Daily Maximum	mg/L	5.0	30.5	52.0
AMMONIA	002	Nov 02 - May 05	Daily Maximum	mg/L	0.5	15.1	67.0
NITRITES (AS N)	002	Jan 97 - May 05	Daily Maximum	mg/L	0.1	0.2	0.5
NITRATE-NITRITE	002	Jan 97 - May 05	Daily Maximum	mg/L	0.3	0.5	0.9
TOTAL KJELDAHL NITROGEN	002	Jan 97 - May 05	Daily Maximum	mg/L	3.1	38.4	109
PHOSPHORUS, TOTAL	002	Jan 97 - May 05	Daily Maximum	mg/L	1.0	11.4	40.3
SOLUBLE ORTHO PHOSPHORUS AS P	002	Nov 02 - May 05	Daily Maximum	mg/L	0.5	3.6	14.7
ENTEROCOCCUS	002	Nov 02 - May 05	Daily Maximum	no./100ml	42.7	245,795	1,000,000

Statutory and Regulatory Basis

The Delaware Department of Natural Resources and Environmental Control (DNREC) has examined the application, discharge monitoring data, and related information. The Department proposes to reissue the facility=s NPDES permit to discharge, for a period not to exceed five (5) years. The discharges are subject to certain effluent discharge limitations, monitoring requirements and other terms and conditions identified in the permit. Section 402 of the federal Clean Water Act, as amended, and 7 Del. C. Chapter 60 provides the authority for permit issuance. Federal and state regulations promulgated pursuant to these statutes are the regulatory bases for permit issuance.

Bases for Effluent Limitations - The following table outlines the bases for the proposed effluent limitations.

TABLE 6
Bases for Effluent Limits and Monitoring

Bases for Effluent Limits and Monitoring (Notes are at the end of this table)							
			Water Quality-Based[1]	Technology-based			
Outfall	Parameter	Lim/Mon.		DRBC[2]	Effluent Limitation Guidelines[5]	Performance-Based[3]	RGCWP[4]
001	Flow	Limit				T	
	BOD_5	Limit			T		T
	Total Suspended Solids	Limit			T	T	
	Oil & Grease	Limit			T	T	
	Total Phosphorus (as P)	Limit				T	
	Ammonia (as N)	Limit	T		T		
	Total Nitrogen	Limit				T	
	Enterococcus	Limit	T				
	Total Residual Chlorine	Limit	T				
	Free Available Chlorine	Monitoring	T				
	Biomonitoring	Monitoring	T				
	pH	Limit					T
	AFree From ... A	Limit	T				
002 & 003	BOD_5	Limit			T		
	Total Suspended Solids	Limit			T		
	Oil & Grease	Limit			T		
	Total Phosphorus (as P)	Limit			T		
	Ammonia (as N)	Limit			T		
	Total Nitrogen	Limit			T	T	
	Enterococcus	Limit	T				
	AFree From ... A	Limit	T				
004	AFree From ... A	Limit	T				

Basis for Effluent Limits and Monitoring Table Notes:

1. State of Delaware Surface Water Quality Standards (**SWQS**), as amended July 11, 2004.
2. Delaware River Basin Commission.
3. Performance-based limits are based on the provisions of 40 CFR 122.45(b)(2)(I).
4. §8.03(b), "Effluent Limitations Based on a Practicable Level of Pollutant Removal Technology", of the State of Delaware Regulations Governing the Control of Water Pollution (**RGCWP**), as amended May 14, 2003.
5. Final Effluent Limitations Guidelines and New Source Performance Standards for the Meat and Poultry Products (MPP) Point Source Category were published in the Federal Register on September 8, 2004 and promulgated in the Code of Federal Regulations at 40 CFR Part 432. Subpart K. - Poultry First Processors applies to the discharges from this facility.

Basis for Effluent Limitations - Discussion

Outfall 001

Table 7 below provides a comparison of the current Outfall 001 limits with the 40 CFR Part 432, Subpart K concentration limits and mass limits derived using the long term average (LTA) flow of 1.05 mgd reported in the

permit application. With the exception of total nitrogen limits (see below), the more stringent of the values shown in Table 6 are incorporated in the new permit.

TABLE 7
Comparison of Effluent Guideline Derived Limits for Outfall 001 with Current Permit Limits

	Daily Average				Daily Maximum			
	Concentration Limit (mg/L)		Mass Limit (lbs/day)		Concentration Limit (mg/L)		Mass Limit (lbs/day)	
	Current Permit	40 CFR 432 Subpart K	Current Permit	40 CFR 432 Subpart K	Current Permit	40 CFR 432 Subpart K	Current Permit	40 CFR 432 Subpart K
BOD_5	-	**16**	**114**	140[1]	**23**	26	228	**227**[1]
TSS	-	**20**	**152**	175[1]	**23**	30	**228**	262[1]
O&G	-	**8**	**68**	70[1]	**14**	14	**99**	122[1]
NH_3 – N (Apr-Oct)	-	**4**	**20.5**	35[1]	**4**	8	**32**	70[1]
NH_3 – N (Nov-Mar)	-	**4**	-	**35**[1]	-	**8**	-	**70**[1]
Total Nitrogen[2]	-	103	-	902	-	147	-	1287
Fecal Coliform (Col/100 ml)	-	400	-	-	-	-	-	-
Enterococcus (Col/100 ml)	**33**	-	-	-	-	-	-	-

[1] Based on 40 CFR Part 432, Subpart K concentration limit and LTA flow of 1.05 mgd reported in Permit Application
[2] Total nitrogen Limits are performance-based (See Table 8 below)

Limits for new permit are bold and highlighted.

Total Nitrogen Limits

The total nitrogen limits shown in Table 7 based on 40 CFR Part 432, Subpart K, are substantially higher than current performance and are considered insufficient to protect the receiving water. While no monitoring data is available for total nitrogen, daily maximum monitoring data is available for Nitrate, Nitrite and TKN. Since TKN includes a measure of both ammonia and organic nitrogen, the sum of Nitrate, Nitrite and TKN was used as an estimate for total nitrogen concentration.

The limits shown in Table 8 are based on the sum of reported Outfall 001 monitoring data for Nitrate, Nitrite and TKN for the period October 2002 through November 2004 consisting of 25 data sets. The data is reported as daily maximum but represents single analyses since the monitoring frequency for these parameters is monthly. The methodology is based on the assumption of normal distribution of the data and the 99th percentile. A review of the statistical graphs show that the data appear to best fit the normal distribution curve. The daily average limits are derived using a multiplier of 1.55 that was derived from Table 5-2 of the "Technical Support Document for Water Quality-based Toxics Control" (EPA Number 505290001 March , 1991) using the calculated coefficient of variation of 0.4 and the values for N=4 since sampling occurs weekly.

Calculation for Daily Average Limits

Daily Average Limit = LTA (mean) * 1.55

TABLE 8
Calculated Performance-based Limits for Outfall 001 Compared to Limits Based on 40 CFR 432 Subpart K

	Daily Average				Daily Maximum			
	Concentration Limit (mg/L)		Mass Limit (lbs/day)		Concentration Limit (mg/L)		Mass Limit (lbs/day)	
	Calculated Limit – Current Performance	40 CFR 432 Subpart K	Calculated Limit – Current Performance	40 CFR 432 Subpart K	Calculated Limit – Current Performance	40 CFR 432 Subpart K	Calculated Limit – Current Performance	40 CFR 432 Subpart K
Total Nitrogen	**46.0**	103	**467**	902	**55.3**	147	**574**	1287

Limits for new permit are bold and highlighted.

Biomonitoring

The current permit requires chronic biomonitoring on 100% effluent, based on the low dilution available in the receiving waters. The facility passed biomonitoring submitted with the permit application and therefore, as in the current permit, one time chronic biomonitoring is due with the permit renewal application that will be due 5 years from now.

Monitoring Frequency

Outfall 001

Monitoring frequencies for parameters with existing limits and monitoring requirements are continued from the current permit. Monitoring frequency for the newly established total nitrogen limits is set at once per week.

Outfalls 002 and 003

Newly designated Outfall 003 discharges storm water similar to current Outfall 002 and, therefore, the same permit conditions applied to Outfall 002 will be imposed on Outfall 003. The storm water discharges at Outfalls 002 and 003 include water from the screening area, trucks parking and clean area, loading and unloading area, and live holding shed area and are covered by the new MPP Effluent Guidelines (40 CFR Part 432).

The discharges at Outfalls 002 and 003 are therefore subject to the 40 CFR Part 432, Subpart K concentration limits shown in Table 1. The limitations based on the MPP Effluent Guidelines are effective upon reissuance of the permit.

Water quality-based enteroccoccus limits are being imposed in lieu of the 400 col/100 mL 40 CFR Part 432, Subpart K limit for fecal coliforms. The "single sample value" limit for enterococcus for primary contact recreation fresh waters of 185 col/100 mL are being imposed on Outfalls 002 and 003. Since the monitoring frequency for all parameters at Outfalls 002 and 003 is set at once per month the "single sample value" limit is being applied as a "daily maximum" limit. This limit is based on Section 4.6.1.1 of the State of Delaware Surface Water Quality Standards (**SWQS**), as amended July 11, 2004.

Monitoring Frequency

The monitoring frequency for Outfall 002 in the current permit is once per quarter. Given that the monitoring data for Outfall 002 indicates that the discharge will not likely be able to meet the newly imposed 40 CFR Part 432, Subpart K concentration limits without modifications to the collection and treatment of the storm water, the monitoring frequency is being increased to once per month to ensure compliance.

Outfall 004

Outfall 004 is currently covered under the General Permit for Storm Water Discharges Associated with Industrial Activity. Outfall 004 is being consolidated into this permit. Since the discharge includes storm water from access driveways and employee parking area and none from process related areas, the 40 CFR Part 432, Subpart K concentration limits do not apply. The standard minimum requirements for non-process related storm waters ("The discharge shall be free from floating solids, sludge deposits, debris, oil and scum") apply.

Special Conditions

Special Condition No. 1 states that this permit supersedes NPDES Permit DE0000299 and the State Permit WPCC 3131D/76 which was issued November 1, 1999.

Special Condition No. 2 is a standard permit reopener clause.

Special Condition No. 3 specifies screening chronic biomonitoring on 100% effluent.

Special Condition No. 4 specifies the methodology of oil & grease analysis.

Special Condition No. 5 specifies the sludge disposal requirements.

Special Conditions No. 6 specifies the total residual chlorine (TRC) test procedures.

Special Condition No. 7 requires implementing and maintaining a Storm Water Plan (SWP) for pollution.

Special Condition No. 8 specifies requirements for a licensed treatment plant operator.